DOCUMENT RESUME

ED 293 840 SP 030 200

TITLE Targeted Forecast April 1988. Number of Public School Classroom Teachers To Increase Slightly This Fall.
INSTITUTION Center for Education Statistics (OERI/ED), Washington, DC.
REPORT NO CS-88-616
PUB DATE Apr 88
NOTE 4p.
PUB TYPE Reports - Research/Technical (143) -- Statistical Data (110)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS Elementary Secondary Education; *Employment Projections; *Enrollment Projections; *Public School Teachers; *Teacher Supply and Demand

ABSTRACT

This report forecasts a slight increase in the number of public school teachers in 1988. The number of public secondary school teachers is projected to decrease in 1989; however, an increase is again expected beginning in fall 1990. The number of public elementary school teachers will grow throughout the period, 1988 to 1992, reflecting the rising number of elementary school pupils. A table showing figures for 1986 and 1987 and forecasts for 1988-1992 is included. A chart comparing the number of public school teachers with student enrollment for 1972-1987 and projections for 1987-1992 is provided. Technical notes describe the methodology of the forecast, sources of data, and discuss forecast accuracy. (JD)

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ED 1.310/2: 293840

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CENTER FOR EDUCATION STATISTICS

Targeted Forecast

April 1988

Number of Public School Classroom Teachers to Increase Slightly This Fall

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1988 Teachers

- The Center for Education Statistics (CES) forecasts that 1.6 percent more teachers will instruct students in public elementary and secondary schools this fall than in 1987.
- The number will increase from the estimated 2.276 million teachers last fall to 2.313 million teachers in 1988.
- While the number of elementary teachers is forecast to rise by 32,000, the number of secondary teachers will increase by almost 5,000.

5-Year Outlook

- The number of public secondary school teachers, which had been increasing since 1983, is projected to decrease in 1989. After this, the number of secondary school teachers is expected to increase again, anticipating the projected increase in secondary school enrollment beginning in fall 1990.
- CES forecasts that the number of public elementary school teachers will grow throughout the period, 1988 to 1992, reflecting the rising number of elementary school pupils.

Forecast

Public school teachers, with forecasts: 1986 to 1992

Status of data	Year (fall)	Number of public school teachers		
		Total	Elementary	Secondary
Actual	1986	2,243,370	1,266,649	976,721
Estimate	1987	2,276,367	1,284,138	992,229
Forecast	1988	2,313,000	1,316,000	997,000
	1989	2,333,000	1,339,000	994,000
	1990	2,355,000	1,360,000	995,000
	1991	2,381,000	1,378,000	1,003,000
	1992	2,419,000	1,398,000	1,020,000

NOTE.--These forecasts were prepared November 1987. Details do not add to totals due to rounding.

Crosscutting
Education Statistics
and Analysis
Division

U.S. Department of Education
Office of Educational Research and Improvement CS 88-616

SP030200

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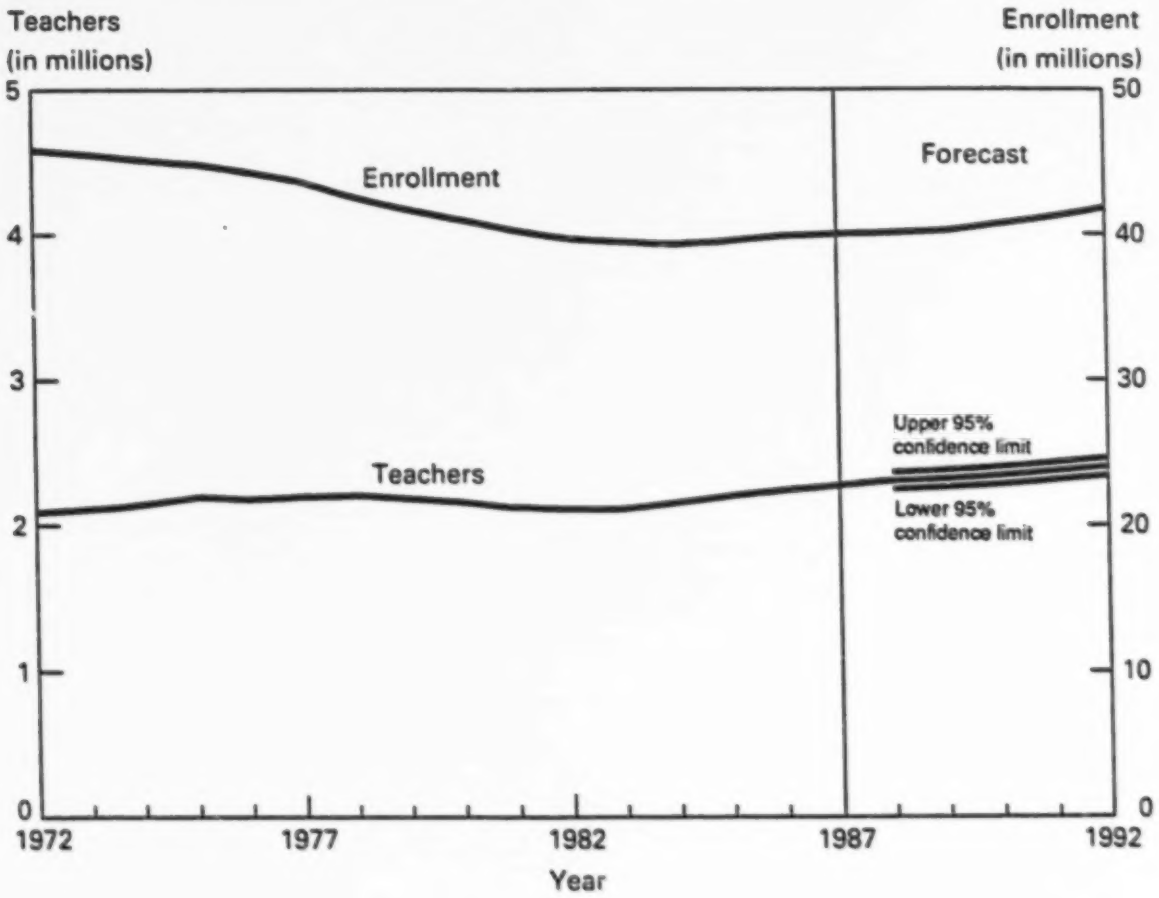
ORIGINAL

Public classroom teachers and enrollment: fall 1972 to fall 1992



Technical Notes

Methodology

This targeted forecast represents the first attempt by CES to model the number of public classroom teachers using econometric methods. The number of elementary teachers was modeled as a function of per capita income (lagged 2 years), revenue receipts from State sources per capita, and elementary enrollment. The number of secondary teachers was modeled as a function of per capita income (lagged 1 year), revenue receipts from State sources per capita, and secondary enrollment (lagged 1 year). Both per capita income and revenue receipts from State sources were in constant dollars. Enrollment is by organizational level, not by grade level. Thus, secondary enrollment is not equal to grade 9-12 enrollment. This is because some States count some grade 7 and 8 enrollment as secondary. The distribution of the number of teachers is by organizational level, not by grade span.

Percent changes were calculated using unrounded numbers.

These forecasts were calculated before the CES early estimate for 1987-88 was available.

For further details on the method used to develop these forecasts, see *Projections of Education Statistics to 1997-98*, forthcoming.

Forecast Accuracy

Since this is the first time that CES has used econometric models to forecast the number of public classroom teachers, the Center has no measure of past model accuracy. However, confidence limits can be used to assess the adequacy of the forecasts. The narrower these limits are, the greater the statistical confidence in the forecasts. For elementary, secondary, and total numbers of public classroom teachers, it is 95 percent sure that the actual value will fall within 2 percent of the forecast value for a given year.

For further details on the method used to calculate the confidence limits, see *Projections of Education Statistics to 1997-98*, forthcoming.

Sources of Data

The total number of public classroom teachers, enrollment by organizational level, and revenue receipts from State sources used in these forecasts were obtained from the Common Core of Data (CCD) survey conducted by the U.S. Department of Education, Center for Education Statistics. The proportion of teachers by organizational level was obtained from *Estimates of School Statistics* by the National Education Association. This proportion was then applied to the total number of teachers from CCD to produce the number of teachers by organizational level. No comparable time series of this type exists for private schools, thus, forecasts of private school teachers could not be calculated. CES is conducting a survey of private schools that should yield, in a couple of years, the data needed to calculate forecasts of private school data. Disposable income per capita was obtained from Data Resources, Inc.'s "Off-Line U.S. Economic Service: Long-Term Option."

Acknowledgments

The Center acknowledges the contributions of the reviewers of this targeted forecast: Ludmilla Murphy of the Bureau of Labor Statistics and Leo Eiden, Susan Hill, Don Malec, and John Sietsema of the Center for Education Statistics.

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